

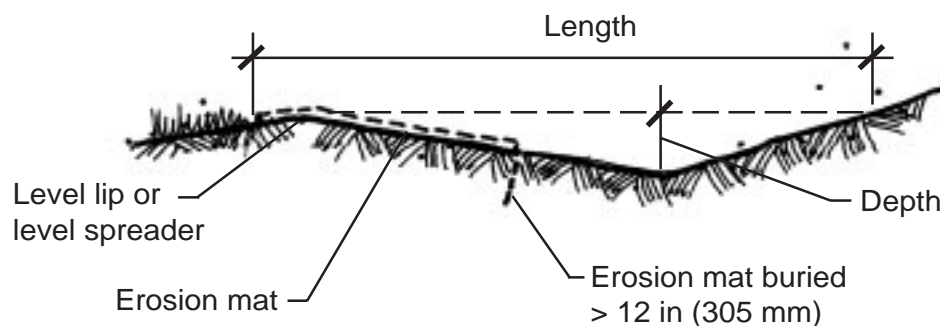
**PRIMARY USE:** To reduce erosion from storm runoff.  
**ADDITIONAL USES:** To reduce concentrated storm runoff.

## LEVEL SPREADER

**What is it?** An outlet for dikes, diversions, or other concentrated runoff which is slightly depressed allowing water to collect and then disperse uniformly over the surrounding vegetated area.

### Purpose

A level spreader is a low cost method to convert a small volume of concentrated runoff to sheet flow and release it onto an area stabilized by existing vegetation.



**Level Spreader  
Section View**

### Limitations

The drainage area should be limited to 5 acres (2 hectares) or 40 cfs (1.1 cms). Diverted water should be sediment free and should be dispersed onto an undisturbed, stabilized area. Regular maintenance is essential to ensure sheet flow discharge.

### Materials

Structures are earthen.

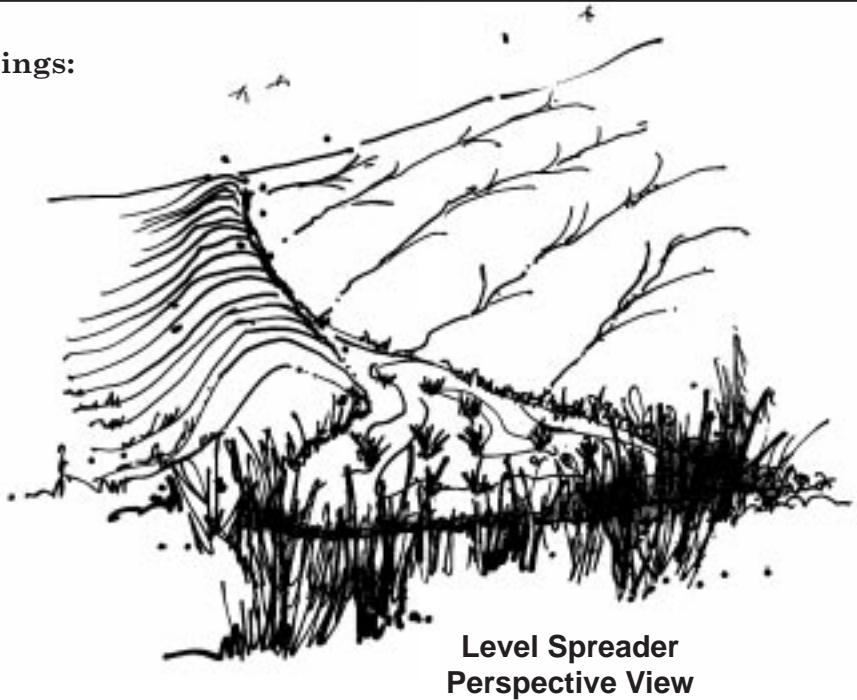
### Installation

Minimum depression width is 6 ft (1.9 m). The grade of the last 20 ft (6 m) of channel entering the depression should be no more than one percent.

**Source:** NRCS Planning and Design Manual, NRCS.

## LEVEL SPREADER

### Additional Drawings:



### Installation Guidelines:

1. Spreader crest length can be determined as follows:

Design Flow		Minimum Depth		Minimum Length	
cfs	cms	ft	m	ft	m
0 – 10	0 – 0.28	0.5	0.15	10	3
10 – 20	0.28 – 0.57	0.6	0.18	20	6
20 – 30	0.57 – 0.85	0.7	0.21	30	9
30 – 40	0.85 – 1.13	0.8	0.24	40	12

2. Minimum depression width is 6 ft (1.9 m).
3. The grade of the last 20 ft (6 m) of channel entering the depression should be no more than one percent.
4. The crest (lower lip of the depression) should have a uniform elevation (i.e., zero grade along its length).
5. Inspection and maintenance is essential to avoid channeling across the crest of the depression.

Source: NRCS Planning and Design Manual, NRCS.